

(12)特許協力条約に基づいて公開された国際出願

(19) 世界知的所有権機関  
国際事務局



(43) 国際公開日  
2005年11月17日 (17.11.2005)

PCT

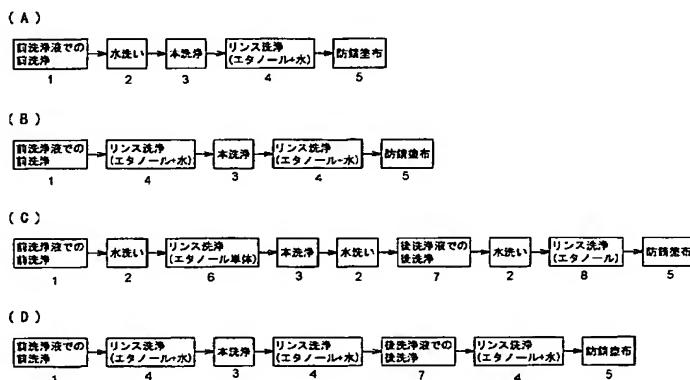
(10) 国際公開番号  
WO 2005/108041 A1

- (51) 国際特許分類: B29C 33/72,  
B08B 3/08, 3/12, C11D 3/04, 3/08, 3/20, 3/28, 3/30, 3/33,  
C23F 11/14, C23G 1/00, 1/14, 3/00
- (21) 国際出願番号: PCT/JP2005/007022
- (22) 国際出願日: 2005年4月11日 (11.04.2005)
- (25) 国際出願の言語: 日本語
- (26) 国際公開の言語: 日本語
- (30) 優先権データ:  
特願2004-137773 2004年5月6日 (06.05.2004) JP  
特願2005-110362 2005年4月6日 (06.04.2005) JP
- (71) 出願人(米国を除く全ての指定国について): ソマックス株式会社 (SOMAX CO., LTD.) [JP/JP]; 〒5370014 大阪府大阪市東成区大今里西2丁目4番4号 Osaka (JP).
- (72) 発明者; および  
(75) 発明者/出願人(米国についてのみ): 富田 和巳
- (TOMITA, Kazumi) [JP/JP]; 〒5370014 大阪府大阪市東成区大今里西2丁目4番4号 ソマックス株式会社内 Osaka (JP). 富田 美智雄 (TOMITA, Michio) [JP/JP]; 〒5370014 大阪府大阪市東成区大今里西2丁目4番4号 ソマックス株式会社内 Osaka (JP).
- (74) 代理人: 大和田和美 (OWADA, Kazumi); 〒5300003 大阪府大阪市北区堂島1丁目6番20号 堂島アバンザ4階 Osaka (JP).
- (81) 指定国(表示のない限り、全ての種類の国内保護が可能): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[続葉有]

(54) Title: MOLD CLEANING SOLUTION, MOLD CLEANING METHOD AND MOLD CLEANING APPARATUS

(54) 発明の名称: 金型洗浄液、金型洗浄方法および金型洗浄装置



- 1 PRE-CLEANING  
2 WASHING WITH WATER  
3 MAIN CLEANING  
4 RINSE CLEANING (ETHANOL + WATER)  
5 RUST PREVENTIVE COATING  
6 RINSE CLEANING (ETHANOL ONLY)  
7 POST-CLEANING WITH POST-CLEANING SOLUTION  
8 RINSE CLEANING (ETHANOL)

(57) Abstract: A method for cleaning a mold, wherein a main cleaning solution for use in the electrolytic cleaning as a main cleaning comprises a strongly alkaline component containing one or more selected from sodium hydroxide, potassium hydroxide and sodium carbonate, a chelating agent comprising EDTA 4-sodium salt, an oxidized material removing component comprising an organic or inorganic nitrogen, and sodium gluconate, wherein a purified water is used for the preparation of said main cleaning solution, which results in that the present method is suitable for the cleaning of a nickel mold used for molding a fine molded article, and wherein when a pre-cleaning is carried out before the electrolytic cleaning as a main cleaning, use is made of a pre-cleaning solution comprising a nonionic, cationic or anionic surfactant, sodium metasilicate and/or sodium orthosilicate and a chelating agent.

[続葉有]

WO 2005/108041 A1

# **Document made available under the Patent Cooperation Treaty (PCT)**

International application number: PCT/JP05/007022

International filing date: 11 April 2005 (11.04.2005)

Document type: Certified copy of priority document

Document details: Country/Office: JP  
Number: 2004-137773  
Filing date: 06 May 2004 (06.05.2004)

Date of receipt at the International Bureau: 26 May 2005 (26.05.2005)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland  
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse

# **Document made available under the Patent Cooperation Treaty (PCT)**

International application number: PCT/JP05/007022

International filing date: 11 April 2005 (11.04.2005)

Document type: Certified copy of priority document

Document details: Country/Office: JP  
Number: 2005-110362  
Filing date: 06 April 2005 (06.04.2005)

Date of receipt at the International Bureau: 26 May 2005 (26.05.2005)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland  
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse